

Remarks/Arguments:

Claims 1, 2, 5-10 and 13-15 are pending in the above-identified application. Claims 3, 4, 11 and 12 are canceled by this amendment.

Claims 1-6 were rejected under 35 U.S.C. § 102(e) as being anticipated by Aleksic et al. With respect to claims 3 and 4, this ground for rejection is overcome by the cancellation of those claims. With respect to claims 1, 2, 5 and 6, this ground for rejection is overcome by the amendments to claims 1 and 5. In particular, Aleksic et al. do not disclose or suggest,

a plurality of operators coupled to receive the input signal for generating respective corrected input signal values corresponding to respectively different piecewise-linear segments of the transfer function;

a window detector for determining a value of the input signal and generating a selection signal to select one of the operators based on the value of the input signal; and

a multiplexer, responsive to the selection signal, for selecting one of the respective corrected input signal values corresponding to the selected operator

as set forth in amended claim 1. Basis for this amendment may be found in claims 3 and 4 and in paragraphs 0027-0031 of the specification.

Aleksic et al. describe a system in which the input values to a gamma correction circuit are selected based on two values, S_0 and S_1 , generated from the input signal by logic circuitry and a comparator. These two values are applied to two multiplexers to select: 1) a multiplied value of the input signal ($4*Y$, Y or $Y/2$) and 2) an offset value. These values (See Fig. 3). are then summed to generate the corrected output signal value. This circuitry does not meet the limitation of claim 1 which requires "a plurality of operators ... for generating respective corrected input signal values" and "a multiplexer, responsive to the selection signal for selecting one of the respective corrected input signal values." This difference is significant because, in Aleksic et al. there is an additional step, the adding of the multiplied input signal value to the offset, that must be performed after the selection has been made. This delays the production of the corrected input signal value and requires either the insertion of a compensating delay element or the display of a transient signal while the gamma is being corrected.

In the Office Action it is asserted that Aleksic et al. disclose this limitation of claim 4. Applicants respectfully disagree with this assertion. In Aleksic et al. the corrected signal is not generated until the offset from multiplexer 17 is added to the multiplied input signal value from

multiplexer 15. Thus, Aleksic et al. can not disclose or suggest a multiplexer that selects a corrected input signal value, as required by amended claim 1.

The subject invention overcomes these problems by computing multiple corrected signals in parallel and then selecting one of the corrected signals responsive to the window detector.

Because Aleksic et al. do not disclose or suggest this limitation of claim 1, claim 1 is not subject to rejection under 35 U.S.C. § 102(e) in view of Aleksic et al. Claims 2, 5 and 6 depend from claim 1 and are not subject to rejection under 35 U.S.C. § 102(e) in view of Aleksic et al. for at least the same reasons as claim 1.

Claim 7 was rejected under 35 U.S.C. § 103(a) as being obvious in view of Aleksic et al. and Lin et al. This ground for rejection is overcome by the amendment to claim 1. Aleksic et al. is described above. Lin et al. concerns an adaptive piecewise approximation for gamma correction in which two multiplexers, 110A and 110B, are used to select input values to apply to a subtractor 115 and an adder 135. Thus, Lin et al. also does not disclose or suggest "a multiplexer, responsive to the selection signal, for selecting one of the respective corrected input signal values," as required by amended claim 1. Because Lin et al. do not provide the material that is missing from Aleksic et al., claim 1, and claim 7 which depends from it, are not subject to rejection under 35 U.S.C. § 103(a) in view of Aleksic et al. and Lin et al.

Claims 8-14 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Aleksic et al. and Sathe et al. With respect to claims 11 and 12, this ground for rejection is overcome by the cancellation of those claims. With respect to claims 8-10, 13 and 14, This ground for rejection is overcome by the amendments to claims 1 and 9. In particular, neither Aleksic et al. nor Sathe et al. disclose or suggest,

- a plurality of operators coupled to receive the input signal for generating respective corrected input signal values corresponding to respectively different piecewise-linear segments of the transfer function;

- a window detector for determining a value of the input signal and generating a selection signal to select one of the operators based on the value of the input signal; and

- a multiplexer, responsive to the selection signal, for selecting one of the respective corrected input signal values corresponding to the selected operator

As required by claim 1. Claim 9 includes similar limitations.

Aleksic et al. is described above. Sathe et al. concerns a system for reducing the visibility of quantization noise in a video processing system. Figs. 4 and 5 of Sathe et al. disclose gamma correction curves but are described only as to the quantization noise produced during the gamma correction process (see col. 7, line 52 through col. 8, line 19). The only method for generating the gamma corrected input signal that is disclosed is to input the video signal values to a memory that provides the corrected output signal values (see col. 7, lines 47-51). Thus, Sathe et al. does not provide the material that is missing from Aleksic et al. Accordingly, claims 1 and 9 are not subject to rejection under 35 U.S.C. § 103(a) in view of Aleksic et al. and Sathe et al. Claim 8 depends from claim 1 and claims 10, 13 and 14 depend from claim 9. Accordingly, these claims are not subject to rejection under 35 U.S.C. § 103(a) in view of Aleksic et al. and Sathe et al. for at least the same reasons as claims 1 and 9.

Claim 15 was rejected under 35 U.S.C. §103(a) as being obvious in view of Aleksic et al., Sathe et al. and Lin et al. All of these references are described above. As described above, none of these references discloses or suggests "a multiplexer, responsive to the selection signal, for selecting one of the respective corrected input video signal values," as required by amended claim 9. accordingly, claim 9 and claim 15 which depends from it, are not subject to rejection under 35 U.S.C. § 103(a) in view of Aleksic et al., Sathe et al. and Lin et al.

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In view of the foregoing amendments and remarks, Applicants request that the Examiner reconsider and withdraw the rejection of claims 1, 2, 5-10 and 13-15.

Respectfully submitted,


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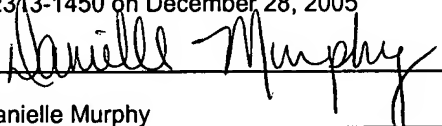
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